

CLAIMS

What is claimed is:

- 5 1. A method of suppressing or eliminating tumor cells, comprising administering to a subject in need of treatment a therapeutically effective amount of neutral soluble glucan and at least one complement activating anti-tumor antibody, wherein the glucan does not induce inflammatory cytokines and the glucan and antibody suppresses or eliminates tumor cells.
- 10 2. The method of claim 1, wherein the antibody is introduced via direct administration of monoclonal or polyclonal antibodies or produced by the body via cancer vaccine
- 15 3. The method of claim 1, wherein the antibody is selected from the group consisting of: trastuzumab, rituximab, cetuximab and combinations thereof.
- 20 4. The method of claim 1, wherein the soluble beta glucan is administered parenterally.
- 25 5. A method of treating a neoplastic cell, comprising administering to the cell a therapeutically effective dose of a neutral soluble glucan and a complement activating antibody specific to the neoplastic cell; wherein the glucan does not induce inflammatory cytokines.
6. The method of Claim 5, wherein the glucan and antibody retard the rate of growth of the neoplastic cell.
- 30 7. The method of Claim 5, wherein the glucan and antibody inhibit the growth of the neoplastic cell.

8. The method of Claim 5 wherein the glucan and antibody extend the survival time of a host of the neoplastic cell.
- 5 9. A method of immunomodulation in which a shift from a Th2 response to a Th1 response is induced by administering a therapeutically effective amount of whole glucan particles.
- 10 10. A method of immunomodulation for the treatment of cancer in which a shift from a Th2 response to a Th1 response is induced by administering a therapeutically effective amount of whole glucan particles.
- 15 11. The method of Claim 10, wherein the immunomodulation increases the effectiveness of anti-tumor therapy.
- 20 12. The method of claim 10, wherein the antitumor therapy comprises: administering to a subject in need of treatment a therapeutically effective amount of a neutral soluble glucan and complement activating antibodies targeted to antigens of said tumor cells; wherein the antibodies are introduced by administering an appropriate vaccine or by directly administering monoclonal or polyclonal antibodies.
- 25 13. Use of a composition comprising neutral soluble glucan and complement activating antibody for the manufacture of a medicament for use in treating a neoplastic cell, wherein the composition retards the growth of the cell and the glucan does not induce inflammatory cytokines.
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14. The method of claim 1, wherein the neutral soluble glucan is in a single helix conformation, a triple helix conformation or combinations thereof.
- 5 15. A method of suppressing or eliminating tumor cells, comprising administering to a subject in need of treatment a therapeutically effective amount of a composition comprising, neutral soluble barley glucan and at least one complement activating anti-tumor antibody, wherein the composition suppresses or eliminates tumor cells.
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